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ABSTRACT

The CAPISCO Bilingual Program at New Utrecht High School in New York is designed to offer bilingual instructional and supportive services to predominantly 9th and 10th grade Italian students. The target population consists of approximately 150 Italian language dominant students receiving intensive instruction in English as a second language instruction in their native language in the three content areas of Social Studies, Science and Mathematics. They also receive instruction in native Italian language in order to improve their linguistic skills and to obtain an awareness of their background together with the artistic, scientific, and social contributions made by their people through the ages. These students are integrated with English dominant students in Music, Art, Health Education, Typing, and Industrial Arts. Objectives of the program are that the students gain in reading, arithmetic, and native language reading achievement. Among the findings are the following: (1) each grade, as well as all grades combined, demonstrated gains in reading achievement beyond normal expectancy on the Stanford Achievement Test, (2) the total group demonstrated significant gains in language reading achievement, (3) each grade, as well as all grades combined, showed significant gains in arithmetic achievement beyond normal expectancy on the Metropolitan Arithmetic Achievement Test, (4) in general the participation of students and teacher-student relationship was good, (5) pupil attendance rates increased, and attitudes toward school and toward self improved. (Author/AM)

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EVALUATION REPORT

Function No. 09-67610

NEW UTRECHT HIGH SCHOOL BILINGUAL PROGRAM-CAPISCO

SCHOOL YEAR 1975-1976

PROGRAM EVALUATOR: JACOB ABRAMSON

An evaluation of a New York City school district educational project funded under Title VII of the Elementary and Secondary Education Act of 1965 (PL 89-10) performed for the Board of Education of the City of New York for the 1975-76 school year

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THE NEW UTRECHT CAPISCO BILINGUAL PROGRAM

CHAPTER I: THE PROGRAM

Program Description

The CAPISCO Bilingual program at New Utrecht High School is designed to offer bilingual instructional and supportive services to predominantly 9th and 10th grade Italian students.

The target population consists of approximately 150 Italian language dominant students receiving intensive instruction in English as a second language; instruction in their native language in the three content areas of Social Studies, Science and Mathematics; instruction in native Italian language in order to improve their linguistic skills and to obtain an awareness of their background together with the artistic, scientific and social contributions made by their people through the ages. These students are integrated with English dominant students in Music, Art, Health Education, Typing and Industrial Arts.

The program for the school year 1975-76 began in the latter part of October 1975 due primarily to a community boycott of about five weeks due to a zoning change imposed by the NYC Board of Education.

Program Objectives

1. As a result of the program, the students will demonstrate a statistically significant gain in reading achievement beyond normal expectancy as measured by a pre-post administration of alternate forms of the Stanford Reading Achievement Test.

2. As a result of the program, the students will demonstrate a statistically significant gain in arithmetic achievement beyond normal expectancy as measured by a pre-post administration of alternate forms of the Metropolitan Arithmetic Achievement Test.

3. As a result of the program, the students will demonstrate a statistically significant gain in native language reading achievement as measured by a pre-post administration of alternate forms of a teacher made instrument.

4. As a result of the program, the percentage of students who pass uniform examinations in, or receive passing grades in the content areas of Social Studies, Science and Mathematics will at least equal that percentage of comparable regular students.

5a. As a result of the program, the attendance percentage of program students will be higher in the Spring 1976 term than in the Fall 1975 term.

b. As a result of the program, a higher percentage of program students will have attendance rate of 85% or more in the Spring 1976 term than in the Fall 1975 term.

6. As a result of the program, a higher percentage of students at final test time will relate more positively to the school setting and toward themselves than at initial test time as measured by a pre-post administration of "Student Self-Rating Scale" in the native language.

CHAPTER II: EVALUATIVE PROCEDURES

Evaluation Objectives

1. To determine if as a result of the program, the students will demonstrate a statistically significant gain in reading achievement beyond normal expectancy as measured by a pre-post administration of alternate forms of the Stanford Reading Achievement Test.

2. To determine if as a result of the program, the students will demonstrate a statistically significant gain in arithmetic achievement beyond normal expectancy as measured by a pre-post administration of alternate forms of the Metropolitan Arithmetic Achievement Test.

3. To determine if as a result of the program, the students will demonstrate a statistically significant gain in native language reading achievement as measured by a pre-post administration of alternate forms of a teacher-made instrument.

4. To determine if as a result of the program, the percentage of students who pass uniform examinations in, or receive passing grades in, the content areas of Social Studies, Science and Mathematics will at least equal that percentage of comparable regular students.

5. a. To determine if as a result of the program, the attendance percentage of program students will be higher in the Spring 1976 term than in the Fall 1975 term.
   b. To determine if as a result of the program, a higher percentage of program students will have attendance rate of 85% or more in the Spring 1976 term than in the Fall 1975 term.

6. To determine if as a result of the program, a higher percentage of students at final test time will relate more positively to the school setting and toward themselves than at initial test time as measured by a pre-post administration of "Students Self-Rating Scale" in the native language.

CHAPTER III: FINDINGS

Reading Achievement in English

In Table I, it is shown that both 9th and 10th grade students, as well as 11th and 12th grade students combined increased their total reading achievement by an amount greater than predicted by the historical regression technique. The period from initial to final testing was 5½ school months.

TABLE I

Significance of Mean Total Grade Score Differences between Predicted Post-Test Scores and Actual Post-Scores on the Stanford Reading Achievement Test-by Grade

Grade	No.	Pre-Test Mean	Pred. Post Test Mean	Pred. Post Test S.D.	Act. Post Test Mean	Act. Post Test S.D.	Mean Diff. (A-P)	Corr. (A-P)	SEMd	t	p
9th	29	3.41	3.57	1.15	3.99	1.37	.42	.873	.126	3.333	.01
10th	20	4.95	5.16	1.35	5.55	1.26	.39	.880	.145	2.690	.01
11-12th	19	4.96	5.16	1.30	5.85	1.67	.69	.813	.233	2.961	.01
Total	68	4.30	4.48	1.49	4.97	1.66	.49	.924	.072	6.806	.01

As can be seen from the above table, the expected gain in reading achievement for the total group as well as the 9th, 10th grades and 11th plus 12th grades from pre- to post testing ranged from 1.6 to 2.1 school months. The 9th grade students gained 4.2 school months more than expected from initial to final testing and this difference was statistically significant at less than the .01 level. The 10th grade students gained 3.9 school months more than expected from initial to final testing, with this difference being statistically significant at less than the .01 level. The 11th and 12 grade students combined gained 6.9 school months more than expected from initial to final testing, with this difference being statistically significant at less than the .01 level.

At final test time, the 9th grade students were functioning 5.9 school years below grade norm (9.9), the 10th grade students were functioning 5.3 school years below grade norm (10.9), while the 11th and 12th grade students combined functioned 6.0 school months below grade norm (11.9).

Reading Achievement in Italian

In Table II, it is shown that 9th and 10th grade students increased their reading achievement in Italian from Initial to Final testing. The time period from initial to final testing was 5½ school months.

TABLE II

Significance of Mean Total Raw Score Differences Between Initial and Final Test Scores on a Teacher Made Instrument in Italian - By Grade

		Initial		Final		Mean	Corr. (Init.-Final)			
Grade	No.	Mean	S.D.	Mean	S.D.	Diff.		SEMd	t	p
9th	25	56.2	20.10	72.8	15.41	16.6	.220	4.590	3.617	.01
10th	20	77.5	15.56	80.5	9.30	3.0	.384	3.382	.887	NS
11-12th	19	78.0	-	78.4	-	.4	-	-	-	NS
Total	64	69.3	20.86	76.9	12.90	7.6	.287	2.650	2.868	.01

As can be seen from the above table, the 9th grade students gained 16.6 points from initial to final testing with the mean gain being statistically significant at less than the .01 level. The mean raw score gain of the 10th grade students was 3 points and that of the 11th and 12th grades combined was less than one point, with these differences not being statistically significant. The mean raw score gain of all students combined was 7.6 points, with this difference being statistically significant at less than the .01 level.

Arithmetic Achievement

Participating bi-lingual students increased their arithmetic achievement from initial to final testing by an amount greater than predicted by the historical regression technique. Time period from initial to final testing was eight school months.

TABLE III

Significance of Mean Grade Score Differences Between Predicted Post-Test Scores and Actual Post-test Scores on the Metropolitan Arithmetic Achievement Test by Grade - October 1975 and May 1976

Grade	No.	Pre-Test Mean	Pred. Posttest Mean	Pred. Posttest S.D.	Act. Posttest Mean	Act. Posttest S.D.	Mean Diff. (A-P)	Corr. (A-P)	SEMd	t	p
9th	19	6.14	6.55	1.16	7.25	1.34	.70	.660	.244	2.869	.01
10th	22	6.01	6.42	1.17	7.45	1.17	1.03	.709	.195	5.282	.01
11-12th	17	6.29	6.72	1.07	7.96	1.10	1.24	.852	.147	8.435	.01
Total	58	6.14	6.55	1.14	7.53	1.27	.98	.715	.134	7.313	.01

As can be seen from the above table, the expected gain in arithmetic achievement for the total group as well as for the 9th and 10th grades individually from initial to final testing was about four school months. The 9th grade group gained seven school months more than expected from initial to final testing, with this difference being statistically significant at less than the .01 level; the 10th grade students gained one school year more than expected from initial to final testing, with this difference being statistically significant at less than the .01 level; the 11th-12th grade students gained 1.2 school years more than expected from initial to final testing, with this difference being statistically significant at less than the .01 level.

All students combined gained one school year more than expected from initial to final testing, with this gain statistically significant at less than the .01 level.

At final test time, the 9th grade students were functioning 2.6 school years below grade norm (9.9); the 10th grade students functioning 3.4 school years below grade norm (10.9); the 11th-12th grade students were functioning 3.9 school years below grade norm (11.9).

Final Grade Comparison of Bilingual and Regular Students in the Subject Areas of Science, Mathematics and Social Studies

Science

As a result of the program, a higher percentage of bilingual students received passing grades in Science and Biology combined than regular students receiving instruction in English.

TABLE IV

Percentage Comparison of Passing Final Grades in Science - Between Bilingual and Regular Students - June 1976

Group	Register	Passing No.	Passing %	% Diff.	SE% Diff.	t	p
Bilingual	89	88	98.9	17.9	5.270	3.390	.01
Regular	58	47	81.0				

As can be seen from the above table, 98.9% of the bilingual students as compared with 81.9% of the regular students received passing grades in Science. The difference of 17.9% in favor of the bilingual group was statistically significant at less than the .01 level.

Mathematics

As a result of the program, a higher percentage of bilingual students received passing grades in Mathematics than regular students receiving instruction in English.

TABLE V

Percentage Comparison of Passing Final Grades in Mathematics - Between Bilingual and Regular Students - June 1976

Group	Register	Passing No.	Passing %	% Diff.	SE% Diff	t	p
Bilingual	60	53	88.3	4.5	5.964	.755	NS
Regular	74	62	83.8				

As can be seen from the above table, 88.3% of the bilingual students as compared with 83.8% of the regular students received passing grades in Mathematics. The difference of 4.5% in favor of the bilingual group was not statistically significant.

Social Studies

As a result of the program, a higher percentage of bilingual students received passing grades in Social Studies than regular students receiving instruction in English.

TABLE VI

Percentage Comparison of Passing Final Grades in Social Studies Between Bilingual and Regular Students - June 1976

Group	Register	Passing No.	Passing %	% Diff.	SE% Diff.	t	p
Bilingual	73	65	89.0	11.8	5.973	1.976	.05
Regular	79	61	77.2				

As can be seen from the above table, 89.0% of the bilingual students as compared with 77.2% of the regular students received passing grades in Social Studies. The difference of 11.8% in favor of the bilingual group was statistically significant at the .05 level.

All Subjects Combined

As a result of the program, a higher percentage of bilingual students received passing grades in all their subject areas combined than regular students receiving instruction in English.

TABLE VII

Percentage Comparison of Passing Final Grades in All Three Subject Areas Between Bilingual and Regular Students - June 1976

Group	Register	Passing No.	Passing %	% Diff.	SE% Diff.	t	p
Bilingual	222	206	92.8	12.2	3.228	3.779	.01
Regular	211	170	80.6				

As can be seen from the above table, 92.8% of the bilingual students as compared with 80.6% of the regular students received passing grades in all three subject areas combined. The difference of 12.2% in favor of the bilingual group was statistically significant at less than the .01 level.

Attendance

As a result of the program, the average percentage of attendance for program participants was somewhat higher in the Spring 1976 term than in the Fall 1975 term.

TABLE VIII

Comparison of Average Percentage of Attendance of Program Students- Fall 1975 and Spring 1976

	No.	Mean	S.D.	Mean Diff.	Corr.	SEMd	t	p
Fall 1975	78	82.7	8.62					
				2.0	.499	.941	2.125	.05
Spring 1976	78	84.7	7.94					

As can be seen from the above table, the average percentage of attendance of program students in the Spring 1976 term was 84.7% as compared with 82.7% in the Fall 1975 term. This difference of 2.0% in favor of the Spring 1976 term was statistically significant at the .05 level.

As a result of the program, a higher percentage of program students achieved an attendance rate of 85% or more in the Spring 1976 term than in the Fall 1975 term.

TABLE IX

Comparison of Program Students With an Attendance Rate of 85% or More - Fall 1975 and Spring 1976

	No.	Attendance 85% or more No.	%	Perc. Diff.	SE% Diff.	t	p
Fall 1975	78	36	46.2				
				8.9	7.970	1.117	NS
Spring 1976	78	43	55.1				

As can be seen from the above table, in the Spring 1976 term 55.1% of the program students achieved an attendance rate of 85% or more as compared with 46.2% in the Fall 1975 term. This difference of 8.9% in favor of the Spring 1976 term was not statistically significant.

Attitude Toward School

Some 36 students completed the "Student Self Rating" form in their native language at initial and final administration. There were some 27 statements; on 19,if the student chose 1,2, or 3, it was considered a positive response. On the remaining 8 items, if the student chose 5,6, or 7, it was considered a positive response.

Using a criterion of 75% or more positive responses per item, at final administration,44.4% (12 out of 27 items) met this criterion compared with 40.7% (11 out of 27 items) at initial administration, an increase of 3.7%.

From initial to final administration,on 59.3% of the items (16 out of 27 items), the participants demonstrated an increase in positive responses. On six of the items, there was an increase of 5% or less; on five items there was an increase of 6 to 10%; and on the remaining five items there was an increase of 15 to 22%, with only two of the items providing statistically significant results at less than the .02 level.

Discrepancy Analysis

The evaluator made some five to six site visits. On each of these visits, he met with the coordinator and followed a typical program of the program participants which was as follows: major subject area instruction in native language, native language instruction, and ESL instruction. Attentiveness and discipline was evident as shown by the high degree of involvement and participation of the students in all subject areas as well as the interaction between students and teachers.

CHAPTER IV: SUMMARY OF MAJOR FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Findings:

1. Each grade, as well as all grades combined demonstrated a statistically significant gain in reading achievement beyond normal expectancy on the Stanford Reading Achievement Test.
2. The 9th grade, as well as the total group demonstrated a statistically significant gain in native language reading achievement.
3. Each grade, as well as all grades combined demonstrated a statistically significant gain in arithmetic achievement beyond normal expectancy on the Metropolitan Arithmetic Achievement test.
4. A higher percentage of students received passing grades in all major subject areas than a comparable group of regular students. The percentage difference was statistically significant in the content areas of Science and Social Science, as well as in all subject areas combined.
5. The average percentage of attendance of students was significantly higher in the Spring 1976 term than in the Fall 1975 term.
6. A higher percentage of students had an attendance rate of 85% or more in the the Spring 1976 term than in the Fall 1975 term.
7. A higher percentage of students at final administration demonstrated a more positive attitude toward school and toward themselves than at initial administration.

Conclusions: The majority of the content subject areas was in the native language with some elaboration of concepts and content to the English equivalent. Student inter-action was noticeable.

In general, the participation of the students was good. There was generally a good relationship between the teachers and the students. Basically the students did not appear to be lost or floundering, but appeared to be involved in the subject matter.

Recommendations: Bi-lingual staff members should have a common free period to discuss students and their needs and to plan for their progress.

ESL should be expanded to a minimum of a full two years, and postponing speech until later.

ESL and Bi-lingual courses should be offered for those students who arrive with sufficient credits for Junior or Senior year placement.

Remedial courses in all subject areas and especially in English and Mathematics should be increased to help those students who are eligible for high school but who have not completed eight years of study in their native country.

More cooperation between subject area departments, English Dept. and staff of program, in terms of Curriculum and Content in the subject areas.

More guidance and counseling for students and parents should be provided, with more emphasis on showing both students and parents the importance of the program for the student in terms of academic achievement, graduation and future employment.

If and when students are placed in the mainstream, there should be a follow-up of these students in terms of their achievement and functioning, as well as their attitude toward school and themselves.

In view of the overall increase in pupil performance and attitude toward school and themselves, the program should be continued.